

Advisory Circular

Subject: FAA Accepted Means of Compliance **Date:** DRAFT **AC No:** 23.10

Process for 14 CFR Part 23 Initiated by: ACE-100

1 **PURPOSE.**

This advisory circular (AC) provides guidance on how to submit a proposed means of compliance to part 23 for acceptance by the Administrator in accordance with Title 14, Code of Federal Regulations (14 CFR) § 23.10, Accepted means of compliance. This guidance provides information to applicants seeking approval for a type certificate (TC), an amended TC, a supplemental type certificate (STC), an amended STC, type design changes, or parts manufacturer approval (PMA) that require use of the airworthiness standards contained in part 23.

2 **APPLICABILITY.**

- 2.1 This AC applies to applicants seeking approval for a TC, an amended TC, a STC, an amended STC, type design changes, or PMAs that require use of the airworthiness standards contained in part 23. This AC is intended for use by Design Approval Holders and persons seeking design approvals.
- 2.2 This AC is not mandatory and does not constitute a regulation. This AC describes an acceptable means, but not the only means, to comply with § 23.10. However, if you choose to use the means of compliance described in this AC, you must follow it in all important respects.

3 **DEFINITIONS.**

- 3.1 Accepted Refers to the Administrator's acceptance of a means of compliance. This acceptance is evidenced either through FAA formal acceptance of consensus standards, references to consensus standards in published FAA ACs, means of compliance issue papers, policy statements, or other FAA documentation that shows the Administrator has accepted the means of compliance for showing compliance with part 23 regulations. Acceptance of a means of compliance is also dependent on the applicability of its use in the approval being sought for the particular airplane or technology.
- 3.2 *Consensus Standards* For the purposes of this AC, consensus standards are industry-developed standards. Consensus standards may include, but are not limited to, those

- developed by the RTCA, SAE International (SAE), ASTM International (ASTM), and the European Organization for Civil Aviation Equipment (EUROCAE). This is different from the definition in 14 CFR part 1, which applies to Light Sport Aircraft.
- 3.3 *Means of Compliance* A documented procedure used by an applicant to show compliance with part 23 airworthiness standards. A means of compliance is one method, but not the only method, to show compliance with a regulatory requirement. Additionally, if a procedure is used as a means of compliance, it must be followed completely to maintain the integrity of the means of compliance.

4 CONSENSUS STANDARDS.

- 4.1 Section 12(d) of the National Technology Transfer and Advancement Act of 1996¹ (Public Law 104-113; 15 U.S.C. 272 note) directs Federal agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical. The Office of Management and Budget Circular A-119², Federal Participation in the Development and Use of Voluntary Consensus Standards and Conformity Assessment Activities, provides guidance to Executive agencies in implementing the requirements of the National Technology Transfer and Advancement Act of 1996. Additionally, § 3(c) of the Small Airplane Revitalization Act of 2013³ (Public Law 113-53; 49 USC 44704 note) requires the Administrator, when prescribing regulations, to use consensus standards as described in section 12(d) of the National Technology Transfer and Advancement Act of 1996 to the extent practicable while continuing traditional methods for meeting part 23.
- 4.2 The FAA intends to rely increasingly on consensus standards as a means of compliance beginning with the part 23 performance-based regulations. It is expected that consensus standards will eventually supersede the existing part 23 advisory materials currently maintained by the FAA.
- 4.3 Using consensus standards accepted by the Administrator is considered the most expeditious path to show compliance with part 23 regulations. Means of compliance previously accepted by the Administrator will continue to be accepted if they haven't been rescinded and if they are applicable for the airplane and technology. The FAA reserves the right to rescind a previously accepted means of compliance if it is determined from service history that the means of compliance does not meet the safety intent of the regulation it references.
- 4.4 The FAA has accepted consensus standards developed by such industry groups as the RTCA, SAE, ASTM, and the EUROCAE.

¹ https://www.gpo.gov/fdsys/pkg/PLAW-104publ113/content-detail.html

² https://www.whitehouse.gov/omb/circulars a119/

³ https://www.gpo.gov/fdsys/pkg/PLAW-113publ53/content-detail.html

4.5 ASTM's F44 General Aviation Aircraft committee provides a comprehensive set of standards intended to support the part 23 performance-based regulations. The FAA will publish a notice of availability in the Federal Register when the Administrator has accepted a standard. Additionally, an unofficial list of standards accepted by the Administrator can be found on the Small Airplane Directorate website.⁴

5 **MEANS OF COMPLIANCE.**

- A means of compliance must set forth an acceptable manner by which an applicant can comply with specific provisions of part 23. A means of compliance must meet the safety intent of the specific regulation(s) it references. In addition to ACs, the prescriptive provisions within previous amendments of part 23, where applicable, may be used as one means of compliance with the part 23 performance-based regulations.
- 5.2 Applicants should list the means of compliance and consensus standards they intend to use to show compliance with part 23 regulations in a certification plan or compliance checklist. FAA Order 8110.4C, Type Certification, describes certification plans and compliance checklists.
- When seeking acceptance of a means of compliance with all of part 23 or just one section, an applicant should propose to the Project Aircraft Certification Office (PACO) a means of compliance that meets the intent of each applicable part 23 performance-based regulations. The proposal should be presented in the certification plan or compliance checklist as described in Order 8110.4C.
- The applicant may wish to consider offering its means of compliance to a consensus standards body for inclusion as part of an industry developed consensus standard. The FAA does not provide means of compliance documents provided by applicants to third parties unless specifically authorized by the applicant.
- Applicants should carefully consider the additional time and effort that could be necessary to coordinate a new or alternate means of compliance when scheduling their projects. FAA coordination may require the efforts of FAA technical specialists, Chief Scientific Technical Advisors, and other governmental agencies. The use of existing accepted means of compliance may be more expeditious.
- To process requests for acceptance of a means of compliance, the FAA will use the issue paper process, as described in AC 20-166A, Issue Paper Process, and FAA Order 8110.112A, Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums. The applicant should describe the technology to the PACO and propose the means of compliance it will use to show compliance with the specific part 23 performance-based regulation(s). The applicant

-

⁴ [INSERT URL WHEN KNOWN]

- may present this proposal in the certification plan or other method agreed with the PACO or may be forwarded to the PACO using a draft issue paper. The PACO will then coordinate the applicant's proposal with the Small Airplane Directorate as described in FAA Order 8110.112A.
- An applicant can propose an alternate means of compliance to an existing accepted means of compliance. In such cases:
- 5.7.1 The applicant proposal should identify the portions of the means of compliance from which it will deviate and provide an alternative means along with a rationale as to why it demonstrates compliance with the intent of the part 23 performance-based regulation.
- 5.7.2 The PACO will review the applicant's proposal to determine if the proposal should be presented to the Small Airplane Directorate for standardization purposes. The PACO will review the Small Airplane Issues List (previously known as the Significant Project List or SPL) for aspects or technology that may necessitate directorate involvement. In determining whether an issue paper is necessary, the PACO should consider—
 - 5.7.2.1 Applications utilizing new or novel features;
 - 5.7.2.2 Past engineering practices;
 - 5.7.2.3 The technical quality of the proposal to demonstrate compliance with the intent of the part 23 regulations;
 - 5.7.2.4 The technical ability of the applicant;
 - 5.7.2.5 Controversial aspects;
 - 5.7.2.6 The technically challenging or confusing aspects of the method proposed;
 - 5.7.2.7 The safety risk of the proposal;
 - 5.7.2.8 Best practice history; or
 - 5.7.2.9 Simply consult with the Small Airplane Directorate project officer or technical specialists for additional guidance.
- 5.7.3 The PACO should note any new or alternate methods of compliance the applicant proposes in the certification project notification (CPN) description to alert the Small Airplane Directorate during the project notification process. The CPN is described in FAA Order 8110.115A.

6 BACKGROUND

- On February 1, 2012, Congress passed the Federal Aviation Modernization and Reform Act of 2012⁵ (Public Law 112-95; 49 USC 40101 note), which requires the Administrator, in consultation with the aviation industry, to assess the aircraft certification and approval process. On November 12, 2013, Congress passed the Small Airplane Revitalization Act of 2013⁶ (Public Law 113-53; 49 USC 44704 note), which requires, among other things, that the FAA—
- 6.1.1 Create a regulatory regime for small airplanes that will improve safety and decrease certification costs;
- 6.1.2 Set safety objectives that will spur innovation and technology adoption;
- 6.1.3 Replace prescriptive rules with performance-based regulations; and
- 6.1.4 Use consensus standards to clarify how safety objectives may be met by specific designs and technologies.
- In the effort to meet these objectives, the FAA revised part 23 by removing most of the prescriptive regulations found in that part and replaced them with performance-based regulations. These regulations capture the safety intent of the earlier prescriptive regulations. The detailed design standards and methods of compliance contained in earlier versions of the rule are now specified in industry consensus standards or other means of compliance documents accepted by the Administrator. The use of consensus standards, while clarifying how safety objectives may be met for specific designs and technologies, also are intended to support quicker development of new standards needed to support installation of rapidly developing safety-enhancing technology into airplanes certificated under part 23 and spur innovation and the adoption of new technologies.

7 **REFERENCES.**

- AC 20-166A, *Issue Paper Process*, and subsequent revisions.
- FAA Order 8110.112A, Standardized Procedures for Usage of Issue Papers and Development of Equivalent Levels of Safety Memorandums, and subsequent revisions.
- FAA Order 8110.4C, Type Certification, and subsequent revisions.

⁵ https://www.gpo.gov/fdsys/pkg/PLAW-112publ95/content-detail.html

5

⁶ https://www.gpo.gov/fdsys/pkg/PLAW-113publ53/content-detail.html

- FAA Order 8110.115, Certification Project Initiation and Certification Project Notification, and subsequent revisions.
- If you have suggestions for improving this AC, you may use the Advisory Circular Feedback form at the end of this AC.

DRAFT

Melvin Johnson Manager, Small Airplane Directorate Aircraft Certification Services

Advisory Circular Feedback

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) emailing this form to <u>9-AWA-AVS-AIR500-Coord@faa.gov</u> or (2) faxing it to the attention of the Aircraft Certification Service Directives Management Officer at (202) 267-3983.

Subj	ect: AC 23.10	Date:
Please check all appropriate line items:		
	An error (procedural or typographical) has been noted	l in paragraph on page.
	Recommend paragraph on page be changed as follows:	
	In a future change to this AC, please cover the follow (Briefly describe what you want added.)	ing subject:
	Other comments:	
	I would like to discuss the above. Please contact me.	
Submitted by: I		Date: